

115
20. (Amended) A lubricant comprising a major amount of a mineral oil having an iodine number of less than 9, a viscosity index of 120 or more and a sulfur content of less than 0.5% and comprising about 95% to about 100% saturates wherein at least 55% of the saturates are aliphatic saturates, and gear oil or transmission fluid additives.

116
27. (Amended) A gear oil or transmission fluid composition comprising a major amount of a basestock and a gear oil or transmission fluid concentrate wherein the basestock comprises a major amount of a mineral oil having iodine number of less than 9, a viscosity index of 120 or more, and comprises about 95% to about 100% saturates wherein at least 55% of the saturates are aliphatic saturate.

A version of the above amended claims marked to indicate the specific amendments may be found in the attached Appendix, in accordance with 37 CFR 1.121(c)(1).

REMARKS

Claims 1, 8, 11-13, 17, 19, 20 and 27 have been amended. Claims 1-27 are in the application. Entry of this amendment, and reexamination and reconsideration of the claims in this application are respectfully requested in light of the above amendments and the following remarks.

Claims 1, 20 and 27 have been amended to specify that the mineral oil used in the basestock comprises about 95% to about 100% by weight saturates and that at least about 55% by weight of the saturates are aliphatic saturates. Claims 17 and 19 have been amended to specify that the mineral oil used in the basestock comprises about 98% to about 100% by weight saturates and that at least about 55% by weight of the saturates are aliphatic saturates. Support for these amendments can be found in the applicant's specification at page 2, line 23 and page 5, lines 7-8.

Claims 1, 17, 19, 20 and 27 have been amended to indicate that the mineral oil has a viscosity index of 120 or more. Support for this amendment can be found in the applicant's specification at page 6, line 4.

Claims 8 and 11-13 have been amended by inserting the word "or" between the words "antiwear" and "extreme pressure." This amendment is being made to correct a typographical error wherein the word "or" was mistakenly omitted. The amended language is consistent with the language used in the specification to describe the antiwear or extreme pressure agent (see, for example, page 15, lines 11-13 of the applicant's specification).

In the final rejection that was mailed February 27, 2002, the Examiner rejected claims 1-27 over Ozbalik et al. (U.S. Patent 6,034,040). This rejection is respectfully traversed for the following reasons.

Ozbalik et al. discloses a lubricating oil formulation that contains a mineral oil having (a) a viscosity index of greater than 110 and an aniline point of greater than 110°C and/or (b) a linear + single ring (i.e., non-condensed cycloparaffin) content of 68 weight percent or greater. The only specific example provided in this reference indicating what is meant by "a viscosity index of greater than 110" is disclosed in column 10 at line 46 wherein "Mineral Oil A" is described as having a viscosity index of 115. Similarly, the only specific example provided in this reference of what is meant by "linear + single ring paraffin content of greater than 68 wt. %" is disclosed in column 10 at line 46 wherein Mineral Oil A is described as having a linear + single ring paraffin content of 73.9.

The applicant's amended claims 1, 17, 19, 20 and 27 clearly distinguish from the teachings in this reference by specifying that the mineral oil has a viscosity index of 120 or greater. The mineral oil specified in amended claims 1, 20 and 27 has a saturates content of about 95% to about 100% by weight, and at least 55% by weight of the saturates are aliphatic saturates. The mineral oil specified in amended claims 17 and 19 has a saturates content of about 98% to about 100% by weight,

and at least 55% by weight of the saturates are aliphatic saturates. These requirements are clearly not suggested by the teachings in Ozbalik et al.

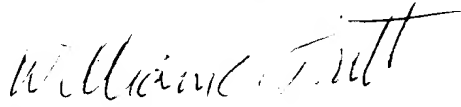
The Examiner admits that Ozbalik et al. fails to teach the aliphatic or linear saturate content and the alicyclic or single ring saturate content separately. On the other hand, applicant discovered that mineral oils having a higher proportion of aliphatic or linear saturates than alicyclic or single ring saturates have better oxidation properties and low temperature properties than those that do not have such higher proportions of aliphatic or linear saturates. See, applicant's specification at page 5, lines 2-16. By specifying that the claimed compositions have about 95% to about 100% saturates (amended claims 1, 20 and 27) or about 98% to about 100% saturates (claims 17 and 19) and that at least about 55% by weight of the saturates are aliphatic saturates, applicant has claimed the use of mineral oils having such higher proportions of aliphatic or linear saturates. These claim requirements are neither disclosed nor suggested in the teachings in Ozbalik et al.

Withdrawal of the rejection of claims 1-27 under 35U.S.C. §103(a) over the teachings in Ozbalik et al. is believed to be warranted and is respectfully requested.

Applicant believes that the application is now in condition for allowance. A Notice of Allowance is respectfully requested.

Respectfully submitted,

THE LUBRIZOL CORPORATION

By 

William C. Tritt
Reg. No. 32,510

29400 Lakeland Boulevard
Wickliffe, Ohio 44092-2298
(216) 621-1113

APPENDIX – VERSION WITH MARKINGS TO SHOW CHANGES

claims 1, 8, 11-13, 17, 19, 20 and 27 have been amended.

1. (Amended) A gear oil or transmission fluid composition comprising a major amount of lubricant basestock and at least one functional additive wherein a major amount of the lubricant basestock comprises a mineral oil having a viscosity index of 120 or more, an iodine number of less than 9 and comprising about 95% to about 100% by weight saturates wherein at least about 55% of the saturates are [at least 45% by weight of] aliphatic saturates.

8. (Amended) The composition of claim 7 wherein the antiwear or extreme pressure agent is at least one sulfur compound, at least one phosphorus containing compound, at least one boron containing compound or mixtures of two or more thereof.

11. (Amended) The composition of claim 8 wherein the antiwear or extreme pressure agent is at least one phosphoric acid ester or salt thereof, at least one metal dithiophosphate, at least one reaction product of a phosphite and sulfur or a source of sulfur, at least one phosphite, at least one reaction product of a phosphorus acid or anhydride and an unsaturated compound, or mixtures of two or more thereof.

12. (Amended) The composition of claim 11 wherein the antiwear or extreme pressure agent is at least one phosphorus acid ester, at least one reaction product of a phosphite [in] and a sulfur or a source of sulfur or mixtures of two or more thereof.

13. (Amended) The composition of claim 7 wherein the antiwear or extreme pressure agent is a boron compound.

17. (Amended) A gear oil composition comprising at least one Group III basestock, at least one polymer having a weight average molecular weight of less than about 50,000, at least one fluidizing agent, and at least one functional additive, the Group III basestock comprising a major amount of a mineral oil having a viscosity index of 120 or more, an iodine number of less than 9, and a saturates concentration of about 98% to about 100% by weight wherein at least about 55% by weight of the saturates are aliphatic saturates.

19. (Amended) A transmission fluid comprising at least one Group III basestock and at least one functional additive, the Group III basestock comprising a major amount of a mineral oil having a viscosity index of 120 or more, an iodine number of less than 9, and a saturates concentration of about 98% to about 100% by weight wherein at least about 55% by weight of the saturates are aliphatic saturates.

20. (Amended) A lubricant comprising a major amount of a mineral oil having an iodine number of less than 9, a viscosity index of 120 or more and a sulfur content of less than 0.5% and comprising about 95% to about 100% saturates wherein at least 55% of the saturates are aliphatic saturates, and gear oil or transmission fluid additives.

27. (Amended) A gear oil or transmission fluid composition comprising a major amount of a basestock and a gear oil or transmission fluid concentrate wherein the basestock comprises a major amount of a mineral oil having iodine number of less than 9, a viscosity index of 120 or more, and comprises [of] about 95% to about 100% saturates wherein at least 55% of the saturates are aliphatic saturate.